

Alemtuzumab/methylprednisolone**S****Coronavirus disease-2019: 2 case reports**

In a case report, a 43-year-old man and a 30-year-old woman were described, who developed coronavirus disease-2019 (COVID-19) during treatment with alemtuzumab or methylprednisolone for relapsing-remitting multiple sclerosis (RRMS) [*not all routes and dosages stated; time to reaction onset not stated*].

Case 1: A 43-year-old man with RRMS and lymphopenia, received 2 doses of alemtuzumab infusion (in April 2018 and April 2019). He had a history of receiving other disease modifying therapies. On 10 March 2020, he started having cough, myalgias and low-grade fever. On 15 March 2020, he was tested positive for SARS-Cov-2 on reverse transcription-PCR. Initially, self-isolation at home and paracetamol were recommended. A week later, he was admitted to the emergency department (ED) due to shortness of breath. Blood gas analysis and chest X-ray were normal. Therefore, he was discharged home on off-label treatment with amoxicillin, lopinavir/ritonavir and hydroxychloroquine. After 5 weeks of starting symptoms, he was fully recovered and returned to work. At his most recent follow-up, PCR was found negative on 6 Apr 2020 and IgG anti-SARS-Cov2 was found positive on 7 May 2020.

Case 2: A 30-year-old woman with RRMS, received her first dose of alemtuzumab in March 2019. She received her second-year dose of alemtuzumab in March 2020 along with pulses of IV methylprednisolone 1 g/day for 3 days. On 18 March 2020, she developed a high fever and cough. On 19 March 2020, she consulted in the ED. On the same day, a chest X-ray was found normal, but she was found positive for SARS-CoV-2 in PCR. Then she was discharged home on an off-label treatment hydroxychloroquine. Additionally, cotrimoxazole [trimethoprim-sulfamethoxazole] and aciclovir [acyclovir] given as prophylactic therapy. On 23 March 2020, she was readmitted to the ED for persistent fever and dyspnoea. A new chest-X-ray showed bilateral infiltrates in the lungs (pneumonia) and increased lymphocyte count. Then, she was hospitalised for 4 days and received an off-label treatment treatment with ceftriaxone and cefditoren. Later, she was discharged with significant improvement. After a month, she was also fully recovered. At her most recent follow-up, PCR was found negative on 25 May 2020 and IgG anti-SARS-Cov2 was found positive on 27 May 2020.

Fernandez-Diaz E, et al. COVID-19 and multiple sclerosis: A description of two cases on alemtuzumab. *Multiple Sclerosis and Related Disorders* 45: Oct 2020. Available from: URL: <http://doi.org/10.1016/j.msard.2020.102402>

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